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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,009	05/19/2006	Xabier Gorritxategi Retolaza	15220.854US01	7748
81236 7590 06/02/2009 Berenbaum, Weinshienk & Eason, P.C. 370 Seventeenth Street Republic Plaza., Suite 4800 Denver, CO 80202			EXAMINER ALI, MOHAMMAD M	
			ART UNIT 3744	PAPER NUMBER
			MAIL DATE 06/02/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,009	Applicant(s) RETOLAZA ET AL.	
	Examiner MOHAMMAD M. ALI	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>09/30/08</u> . | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 2 recites an inlet conduit (8) and an outlet conduit (9); the claim 2 further recites an inlet conduit (10) and an outlet conduit (11) and thus the claim renders indefinite because inlet conduits (8) and (10) does not distinct each other as the numeral items 8 and 10 within the parenthesis are not considered any claimed subject matter. The same problem is prevailing with the two outlet conduits. The claims 3-7 being directly or indirectly dependent on claim 2 are also indefinite. Appropriate correction is required to obviate the 112 problem.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Winnington et al (US 6,263,682). Winnington et al disclose a rotary absorption heat pump that comprises a rotary unit (10) that comprises a vapour generator (20), a condenser (24/34), an evaporator (42) and an absorber (40) interconnected to constitute fluid flow trajectories for a volatile fluid component and a

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liquid absorbing it (See Figs. 1 and 2), the heat pump also comprising heat transmission means for transmitting heat to the vapour generator (20), wherein said heat transmission means comprise a heat exchanger (38) disposed in the rotary unit (10) through which a hot fluid flows (See column 14, lines 1-10), said heat transmission means also comprising adaptor means (the pipe 114 connection connecting between vapor absorber 40 and exchanger 38 and vapor generator 20, Fig. 5) in order to transfer said hot fluid from a static environment to said heat exchanger (38). See Figs. 1-2 and 5, column 10, line 5 to column 12, line 55, column 13, lines 15-31, column 14, and lines 1-10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8-10 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Winnington et al in view of Christensen et al (US 5,617,737). Winnington et al discloses

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the invention substantially as claimed as stated above except spiral tube heat exchanger with internal and external fins. Christensen et al teach the use of a heat exchanger having a spiral tube (See Figs. 11-13), the heat exchanger (10) having exterior fin/crest (18) and interior fin/crest (26) See Fig. 1 in a heat transfer device for the purpose of exchanging heat in an efficient manner. Therefore, it would have been obvious to one having ordinary skill in the art at the time the inventions was made to modify the rotary heat pump of Winnington et al in view of Christensen et al such that a spiral heat exchange tube with internal and external fin could be provided in order to exchange heat in an efficient manner.

Regarding claim 9, nickel-plated copper made heat exchanger is well known in the art and used for avoid corrosion and better heat exchange property as copper being more conductive. Therefore, choosing the nickel-plated heat exchanger is an obvious design choice of an individual as the device is well known in the art.

Regarding claim 10, Christensen et al disclose that the mid part of heat exchanger tube as shown in Figs. 18-23 is in direct contact with air for better heat exchange purpose.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Winnington et al and Christensen et al as applied to claim 8 above, and further in view of Nobuyuki et al (JP 2000-274831 A). Winnington et al and Christensen et al disclose the invention substantially except nickel-plated copper made heat exchanger. Nobuyuki et al teach the use of a heat exchanger (6) made of nickel-plated copper in heat exchanging apparatus for the purpose of efficiently exchanging heat with high corrosion

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resistance property. See the abstract. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the rotary heat pump of Winnington et al and Christensen et al in view of Nobuyuki et al such that a nickel-plated copper made heat exchanger could be provided in order to exchange heat in an efficient manner with a corrosion resistance property.

.Any inquiry concerning this communication or earlier communications from the examiner should be directed to MOHAMMAD M. ALI whose telephone number is (571)272-4806. The examiner can normally be reached on maxiflex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl J. Tyler can be reached on 571-272-4808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Mohammad M Ali/
Primary Examiner, Art Unit 3744